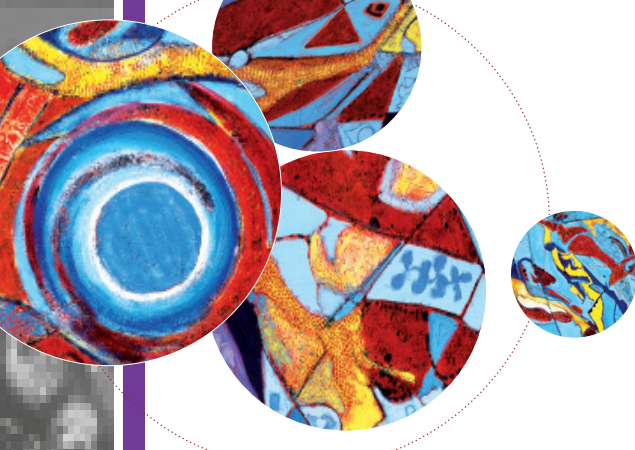


JC virus



Panel composition

This EQA panel for the detection of JC/BK consisted of 5 samples containing various concentrations and strains of BK, 6 samples containing various concentrations and strains of JC, 1 negative sample.

Material and methods

The QCMD panel was prepared using NucliSENS® easyMAG® (bioMérieux) for sample extraction with Specific B protocol (200/50).

Subsequently, the samples were analysed by real-time PCR using **JC Virus r-gene®** (bioMérieux - ref.: 71-004) on Dx Real Time System (Bio-Rad).

Results and discussion

| Panel code | QCMD Results | | | | JC virus r-gene® Results |
|------------|----------------|-------------------|-----------|-----------------------------|--------------------------|
| | Sample Content | Sample Type* | Copies/mL | Log ₁₀ Copies/mL | CT |
| JC.BK13-01 | BKV1b-1 (VTM) | Core (BKV) | 508 | 2.71 | Negative |
| JC.BK13-02 | BKV1b-2 (VTM) | Core (BKV) | 5,260 | 3.72 | Negative |
| JC.BK13-03 | BKV1b-1 (VTM) | Core (BKV) | 21,086 | 4.32 | Negative |
| JC.BK13-04 | JCV 1A (VTM) | Core (JCV) | 16,596 | 4.22 | 31.42 |
| JC.BK13-05 | JCV 1A (VTM) | Core (JCV) | 2,109 | 3.32 | 34.84 |
| JC.BK13-06 | BKV1b-2 (VTM) | Educational (BKV) | 79 | 1.90 | Negative |
| JC.BK13-07 | Negative (VTM) | Core | Negative | Negative | Negative |
| JC.BK13-08 | BKV1b-2 (VTM) | Core (BKV) | 54,325 | 4.73 | Negative |
| JC.BK13-09 | JCV 1A (VTM) | Educational (JCV) | 314 | 2.53 | 39.07 |
| JC.BK13-10 | JCV 2B (VTM) | Core (JCV) | 1,122 | 3.05 | 35.16 |
| JC.BK13-11 | JCV 3A (VTM) | Core (JCV) | 535 | 2.73 | 34.83 |
| JC.BK13-12 | JCV 3A (VTM) | Educational (JCV) | 200 | 2.30 | 36.48 |

*«The QCMD EQA panels contain a range of samples, designed to look at different aspects of assay performance. Panel members are designated 'core proficiency samples' on the basis of scientific information, clinical relevance and clinical experience (...). Laboratories are expected to correctly analyse and report the core proficiency samples in order to show acceptable proficiency.» QCMD 2013 general announcement
Consequently, the educational samples are considered as challenging due to very low concentrations. They are clearly detection limits.

- The 4 “Core” JCV-positive samples of JC/BK 2013 QCMD Panel are detected with JC Virus r-gene®.
- The “Core” negative sample is undetected as expected with JC Virus r-gene®.
- All “Educational” JCV-positive samples (i.e. challenging samples), containing viral loads ranging from 200 copies/mL to 341 copies/mL, are detected.
- The 5 BKV-positive samples are undetected as expected with JC Virus r-gene®.
- The results show the good sensitivity and specificity of the JC Virus r-gene® (ref.: 71-004)